

Recognizing Emerging Roles: Effective Delegation to and Supervision of Pharmacy Technicians for a More Efficient and Effective Pharmacy Organization

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Abstract

Purpose

To describe current and emerging roles of technicians, including advanced roles that might help free up pharmacists' time to participate in direct patient care; discuss the supervision of technicians as knowledge workers who recognize their own aspirations for self-development; and discuss maximizing the effectiveness of the pharmacy workforce support team to advance care for patients and help ensure longevity of this workforce for the organization and for the profession.

Conclusion

Technicians are a key part of the pharmacy team. Their education and training has lacked standardization; however, this is beginning to change as the result of stricter state licensing requirements and newer laws that better define and expand the technician's responsibilities. These newer and expanded technician responsibilities and the education required will only further enhance their value to the pharmacy organization. These newer roles and responsibilities should endeavor a win-win-win for pharmacists, technicians [and other support staff], and patients.

Introduction

Technicians Can Help the Organization Meet Its Goals

A value provided by pharmacists is inherent to their accessibility to the public and their ability to provide patients with their expertise in medication management and information. The pharmacist's ability within the community to promote safe drug use via counseling and medication therapy management (MTM) services is evidence that demonstrates their value to society. Unfortunately, many pharmacists are burdened by administrative, clerical, and dispensing tasks not requiring their clinical judgment. Even with advancements in pharmacy, such as automatic filling/dispensing systems, pharmacists are needed to complete final product verification. Pharmacy technicians can assist greatly in mitigating the pharmacists' need to perform filing/dispensing tasks if workflow is redesigned to do so and if pharmacists are willing and able to delegate some of these responsibilities to others.

There are many recent examples in the literature, including studies employing experimental designs in large health systems. At a central outpatient pharmacy for the University of North Carolina Hospitals and Clinics (UNCH), pharmacy technicians were accorded expansion of their standard duties by adherence to a re-engineered workflow model.¹ Two models were proposed: Model A, used by the UNCH, involved expanding the technician's responsibilities to include prescription preparation, stock-bottle retrieval, and prescription processing (i.e., computer entry, fill, packaging, labeling), while Model B added performance-at-checkout procedures, in addition to the responsibilities in Model A. Time spent by pharmacists on each dispensed prescription was reduced by 24% and 32% in Models A and B, respectively.¹ The findings of this study suggested that effective delegation and workflow redesign can improve efficiency and perhaps open the door to providing more clinical services.¹

A recent systematic review of 44 published articles evaluated pharmacy technician involvement within various components of the MTM process.² This study found the greatest prevalence of technician services were utilized in medication reconciliation (70%), documentation (41%), and medication therapy review (30%). Additionally, this study determined that when technicians are involved in these areas, the pharmacist's time is freed up to engage in tasks that often require more time involving clinical judgments.² Another recent study found that when technicians assume more responsibility for dispensing tasks, the accuracy of dispensing processes is not compromised.³ In fact, the rate of dispensing errors actually was shown to decrease.³

Present Pharmacy Technician Roles, Education, and Training, to Date

It is generally understood by the reader what the common tasks are for a pharmacy technician. The tasks undertaken by the technician are primarily described as "nondiscriminatory" (or those requiring no clinical judgement), such as pulling prescription containers from the shelf; and counting, pouring, and labeling medications placed in a prescription container to be checked by the pharmacist before dispensing to the patient. There are, however, emerging duties being assumed by technicians and which are supported by a state's laws. This expansion of the role of the pharmacy technician parallels other healthcare disciplines, such as what has occurred with other professionals. As physician roles both expanded and became more demanding, in order to service patients better, the physician needed assistance, sometimes noted

as a “physician extender.” As a result, physician assistants (PA) and nurse practitioners (NP) came into existence. The addition of these specialty personnel has allowed physicians the opportunity to spend more time with patients, enhancing patient care outcomes.

The pharmacist is responsible for supervising the actions of technicians and the overall care being rendered in the pharmacy.⁴ The ratio of the supervising pharmacist to working technicians varies by state. For example, in California, the first pharmacist can have one technician in the community pharmacy practice setting; however, additional pharmacists may supervise up to two technicians. Much of the pharmacy technician’s time is dedicated to maintaining inventory, third-party billing, customer service, and a variety of housekeeping tasks (e.g., checking expiration dates) too numerous to mention. Technicians are increasingly involved in administrative tasks such as collecting productivity information, assistance with accounting functions, performing peer evaluations, quality assurance activities, and verifying the work of other technicians.^{6,7}

Sufficient training is important not only for technicians but also for the pharmacists who supervise them. At this time, there are no national standards for technician training and education; furthermore, educational requirements vary between states. For example, in California, requirements to become a pharmacy technician include: 1) a high school diploma (or equivalent), and 2) an associate degree in pharmacy technology (approved by the California State Board of pharmacy). Alternatively, a technician can be certified by the Pharmacy Technician Certification Board (PTCB) or National Health Career Association (NHA, the ExCPT examination) by taking an examination.⁴⁻⁸

There is a movement to standardize pharmacy technician training and to make the educational requirements comparable to those of other allied health professions.⁹ Standardized education/training of technicians may improve expectations by pharmacists and the workflow of the pharmacy. This can allow pharmacists to engage in more direct patient interaction, provide more clinical services, and potentially improve patient outcomes. Pharmacists can take part in advocating for improved technician education and training standards, such as greater competency in patient communication and ethics (e.g., drug diversion and promote professionalism development. With respectful and improved technician standards, pharmacy technicians potentially can take on more pharmacy workflow roles through effective task delegation.¹⁰

Emerging Roles for Pharmacy Technician and Future Education/Training Needs

Technician roles are currently in an evolutionary process. For example, tech-check-tech, medication reconciliation, and immunization administration are quickly gaining traction. Technicians can add more value by assisting in tasks pursuant to pharmacists’ provision of MTM, accepting phone calls for verbal non-controlled prescriptions, and coordinating sales of point-of-care testing devices.¹¹

However, expansion of pharmacy technician roles has been met with some *concern by pharmacists*. Pharmacists can be apprehensive about new trends/technologies, such as automated dispensing and computerized physician order entry. The growing number of new pharmacy schools producing more pharmacists than are jobs available, and the expansion of technician roles may appear threatening

to a more established pharmacist who is concerned about the potential for job loss. On the other hand, the literature supportive of expansion of pharmacy technician roles demonstrated that what has actually happened is pharmacist job enhancements and perhaps even additional responsibilities and potential increased job opportunities for them, rather than job loss.¹² Furthermore, some pharmacists worry about drug diversion when a pharmacy technician is involved with inventory management. These concerns are exacerbated in light of the current opioid crisis; and indeed, there is evidence to suggest that pharmacy technicians have been more frequently involved in diversion.¹³ This might be related to technicians having much less to lose than do pharmacists with drug diversion penalties. Because of the lower criminal risks for pharmacy technicians, it is imperative to increase technician training requirements in values, morals, and ethical decision-making. Moreover, this type of training is advisable for technicians to be more actively involved supervising one another and in tech-check-tech responsibilities (TCT, also known as technician product verification, or TPV), where an advanced practice technician can perform final verification on medications in the institutional or community setting.

Tech-Check-Tech

TCT models are well established in institutional settings where there are existing clinical programs. At least 12 states (as of the year 2019) allow TCT programs in hospitals, including California, with four other states having emerging programs.¹⁴ Most institutions dispense drugs in unit dose packaging, use bar code scanning and electronic medical records, potentially leading to a reduced chance of medication administration errors. Furthermore, technicians utilized within an institution may perform final verifications on drugs that have been reordered only after a drug utilization review (DUR) was completed by the pharmacist. A review of TCT in inpatient setting by Adams et al. found an overall dispensing accuracy of 99.6% for technicians, compared to 99.3% by pharmacists.¹⁵ Additionally, the literature has suggested that TCT implementation resulted in increased time for pharmacist involvement in clinical and patient-centered activities.^{3,16}

In the community setting, medications must first have already been approved as appropriate by pharmacists through DUR or under the control of an automated dispensing system. In a study by Andreski et al., pharmacists double-checked 5,565 final verifications.¹⁶ The researchers found that technicians performed as well as pharmacists in dispensing accuracy (99.45% vs 99.73%).¹⁶ In addition, the study demonstrated increased prevalence in pharmacist-patient consultations by over 19%.¹⁶ For a successful TCT program, one study suggests that participating technicians receive a combination of didactic and on-the-job (practical) experience, and/or required national certification, and completion of a validation period in addition to retesting or revalidation.¹⁷

Medication Reconciliation

Medication reconciliation is a critical function upon patient entry into a hospital and upon discharge. Transitions of care are now widely recognized as one area where interprofessional teamwork is critical to reducing fragmentation and costly hospital readmission.¹⁸

In the past, medication reconciliation was performed predominantly by nurses. Current trends suggest that more hospitals are employing pharmacists and technicians, highlighting the pharmacists’ knowledge of drug therapy and technicians as the pharmacist’s practice extenders.

A prospective cohort study on medication reconciliation performed by technicians by Chan et al. determined that trained pharmacy technicians in a hospital can perform medication reconciliation with similar accuracy to nurses and pharmacists.¹⁹ There was no significant difference in other outcome measures, such as accuracy of collected medication histories, discrepancy in medication histories, discrepancy at admission, or discrepancy at transfer interface.¹⁸ Furthermore, when pharmacists spend less time in the mechanics of the medication reconciliation process, they are able to analyze patients' charts and profiles for medication interactions and adverse effects.

Immunization Administration

Vaccinations for influenza and other communicable diseases are widely regarded as a vital component to public health. However pharmacists often cite the difficulty of administering immunizations due to dispensing demands. To that end, the Idaho state board of pharmacy re-examined its regulations and approved a pilot study for technicians to immunize in that state, under the supervision of an "immunizing pharmacist" who would have received immunization training by any of several approved methods.²⁰ The pilot included 25 technicians who were trained to give vaccinations over a 5 ½-month period. The technicians administered 953 immunizations with 0 adverse events reported.²⁰

Assistance with MTM Activities

Medication therapy medication interventions in outpatient settings may reduce medication-related problems and improve customer loyalty and relationships, resulting in potentially lower healthcare costs. A survey by Adeoye et al. found that pharmacy technicians can actually help pharmacists identify new MTM opportunities.²¹ Technicians could be afforded the scope to handle administrative documentation processes for MTM in order to facilitate claims. For example, a technician can contact insurers to arrange for MTM services. In preparation, technicians would need additional training in communication, third-party billing, time management, customer service, and problem-solving to be qualified to assist with MTM.

Accepting Verbal Transfer Orders

Phone calls for verbal prescription orders and requests for transfers are routine time-consuming and tedious tasks for a pharmacist. This responsibility could potentially be delegated to technicians. Frost et al. discussed accepting verbal prescriptions as a potential expanded role for technicians.²² As of 2017, 17 states allow technicians to accept verbal orders, transfer prescriptions, or both.²² States that allow this practice generally require certification or have the ability to hold technicians accountable for mistakes. The actual need to receive verbal orders is declining with the use of electronic systems, and technicians may be positioned best to complete this task while technology remains in transition. To decrease pharmacists' anxiety in delegating the receiving of verbal orders to technicians, it would be helpful to have further studies reviewing the necessary training and systems/workflow redesign.²²

Remote Data Entry

In Idaho (a state that has been very progressive with technician role expansion), a technician may perform data entry from a remote site. Several states currently allow remote data entry by technicians, and interest in this area

will grow, as the concept was supported by the NABP in 2016.²³

Point of Care Testing

An emerging service in community pharmacies is oversight and counseling associated with point-of-care testing (POCT). POCT allows pharmacists to obtain laboratory results within the normal time of a patient's visit to a pharmacy. A review by Keller et al. discusses possible roles for technicians in assisting a pharmacist performing POCT and analyzing the results.²⁴ Pharmacy technicians can complete the necessary paperwork to submit a Clinical Laboratory Improvement Amendments (CLIA) waiver, which enables the performance of those tests. It should be noted that technicians may need additional Occupational Safety and Health Administration (OSHA) training due to the increased risk of exposure to bodily fluids. Technicians already have a role in inventory management, so assisting in POCT could simply expand this function into ordering testing supplies such as test strips, lancets, or reagents. Detailed records of POCT performed, patients seen, and any quality control measures can be collected and completed by technicians. Furthermore, technicians can schedule POCT, complete appointment reminder calls to patients, and assist with documentation. Essentially, pharmacy technicians are in a position to ensure that POCT can be performed in the community setting in an efficient manner.²⁴

Technicians Supervising other Technicians

With more responsibilities delegated to technicians to free up pharmacists' time, it would appear only natural that some of them be placed in a position to role-model, develop, and oversee other technicians. There is considerable literature on leadership and supervision as it related to pharmacists, and much of the same can be applied to technicians. There are several key factors to create an environment facilitating self-motivation and development by technicians to work to their full potential. Additional technician education and training can incorporate leadership, management, delegation, decision-making, and even a bit of business and financial planning. While national standards for incorporating this type of material into education and training might be slow to develop, pharmacist managers can promote development of technicians and other staff by sponsorship of continuing education, special courses, and other training in these areas. This would make for more professional employees as well as provide incentives for self-development and provide rewards to top-performing personnel without having to provide them with permanent salary raises or other costly development vehicles for which the pharmacist manager might have little or no control.

Managing for Optimum Pharmacy Personnel Effectiveness

Technicians want to be compensated fairly for their time and skill, but they also want to be seen as people with goals and careers. After all, technicians are people, too! The potential for career advancement, job responsibilities, quality of work life, and equitable partnership are also important to technicians. There must be a formal or informal mechanism for technician advancement so that technicians believe that their contributions are of value. Previous research has shown that technicians feel valued by the pharmacist but less so by their employers. These feelings of disappointment are exacerbated when the processes and does not communicate with them their

roles in future practice models. This creates feelings of uncertainty, which have been studied and shown to be very problematic for turnover.²⁵

In today's pharmacy the responsibilities of a supervisor are shared amongst the pharmacist in charge (PIC), the district manager, and staff pharmacists. These responsibilities can include but are not limited to decision-making, delegation, hiring, training, addressing performance, ensuring conformance to personnel policies and internal regulations, progressive discipline, and termination. When PICs are not available, the role of the supervisor goes to staff pharmacists who must ensure that daily tasks are held to certain standards and address any issue that comes up in the pharmacy. There is a positive effect on patient outcomes with good supervision, as poor supervision can result in serious mistakes. There have been cases where inferior oversight and supervision in various areas of health care have been associated with decrements in patient care.^{26,27} The relationship between supervisor and trainee is critical for effective management. In pharmacy, this relationship exists between the PIC and staff pharmacists, PIC and floaters, and for pharmacists and technicians. An important factor for these relationships is respect among employees despite their level of education or position. An effective supervisor is one who is aware of their employees' motivators, hot buttons, desires, and optimal working conditions. As such, this calls for effective situational leadership, even while maintaining consistency and fairness in your demeanor and approach to dealing with people.²⁸

Pharmacists can avoid or effectively handle interpersonal and even self-conflict that arise from: misunderstanding the role of team members, professional/personal self-identity ambiguity issues, different conflict management styles, and role ambiguity that demotivates the workplace.²⁹ Conflict management is an important skill for any supervisor, including pharmacists, which applies to managing technicians, and additionally managing other pharmacists, clerical staff, and even persons from other settings (such as nurses and office managers in physician practices). The pharmacist must be aware of how to supervise different persons with different personalities, mannerisms, and

levels of productivity, but who have similar aspirations. Again, situational leadership applies.

Evidence suggests that effective management of technicians is accomplished by allowing the development of mutual trust between pharmacists and technicians, which may then give pharmacists the confidence to delegate additional roles to them.³⁰ Allowing technicians to complete all non-clinical activities will allow pharmacists to participate more earnestly in tasks that require their clinical expertise, e.g., determining the appropriateness of a vaccine. Moreover, the main components that have been identified for pharmacists to support the transition for an expanded role for pharmacy technicians have been a willingness to delegate identified administrative tasks to technicians, the building of mutual trust between pharmacy staff, and a strong desire to provide patient care by both the technicians and pharmacists.³¹ Some tips for effective supervision of technicians are provided in Table 1. As mentioned above, pharmacists can do much to assist in the development and work satisfaction of technicians, even if they have relatively little control over their salaries. People often value even the "little things" such as being provided lunch/food treats, being sponsored to or taken to local professional meeting, or recognized publicly for a job well done. There are many ways to show appreciation and build camaraderie.

Many people think of technicians as cashiers, pill counters, and/or someone with very little knowledge of pharmacy operations. While many patients have a high regard for technicians in a personal sense, they might not have respect for them in a professional sense, or in what it is they do. In fact, patients often do not even know what it is that pharmacists are capable of. Changing patients' perceptions of technicians (and pharmacists) requires easily witnessed displays of mutual respect, kindness, courtesy, and professionalism of both parties in front of these patients. This will promote a positive image of the pharmacy and likewise help to instill camaraderie and commitment among technicians and other support staff.³²

Table 1: Strategies for effective supervision of pharmacy technicians.

• Demonstrate respect for all employees regardless of education or position
• Be aware of technicians' motivations, hot buttons, desires, and optimal working conditions
• Be consistent and fair while employing situational leadership that is responsive to prevailing conditions
• Provide consistent informal and formal performance feedback
• Recognize that technicians are people, too, with goals of self-actualization, just like pharmacists and all other persons
• Effectively communicate a long-term plan known to all employees
• Have a plan in place for employee career advancement, preferably a career laddering mechanism
• Apply extrinsic rewards (e.g., salary and benefits) when possible, but when that's not possible, do the "little" things that show appreciation and keep technicians motivated
• Analyze staffing needs to minimize under-staffing and over-staffing at various times/shifts of the day
• Employ proper orientation, on-boarding, and training
• Analyze job descriptions against what is actually being done and against the current workflow to determine where efficiencies can be gained
• Recognize emerging roles, keep abreast of the literature, and be on the cutting edge of delegation to technicians
• Praise good work ethic or performance by technicians publicly and privately

Conclusion

Technicians are a key part of the pharmacy team. They perform a wide variety of activities, from working the cash register to preparing sterile intravenous compounds. Their education and training have been anything but standardized, and their recognition sparse. Strengthening education and training requirements, coupled with a greater understanding of the expanded scope of practice for pharmacy technicians, can create a “win-win” for all pharmacy stakeholders. Effective management/supervision employing situational leadership will likely go a long way in creating a more effective, patient-friendly, and collegial practice.

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